Machine Tool Recyclers

We buy scrap tungsten carbide for recycling & hss too

630-964-5030 | Ask for Jesse or Jon

We offer top prices and prompt payment for:

Scrap, used, old, obsolete high-speed steel or tungsten carbide tooling:
drills, endmills, inserts, taps, router bits, etc

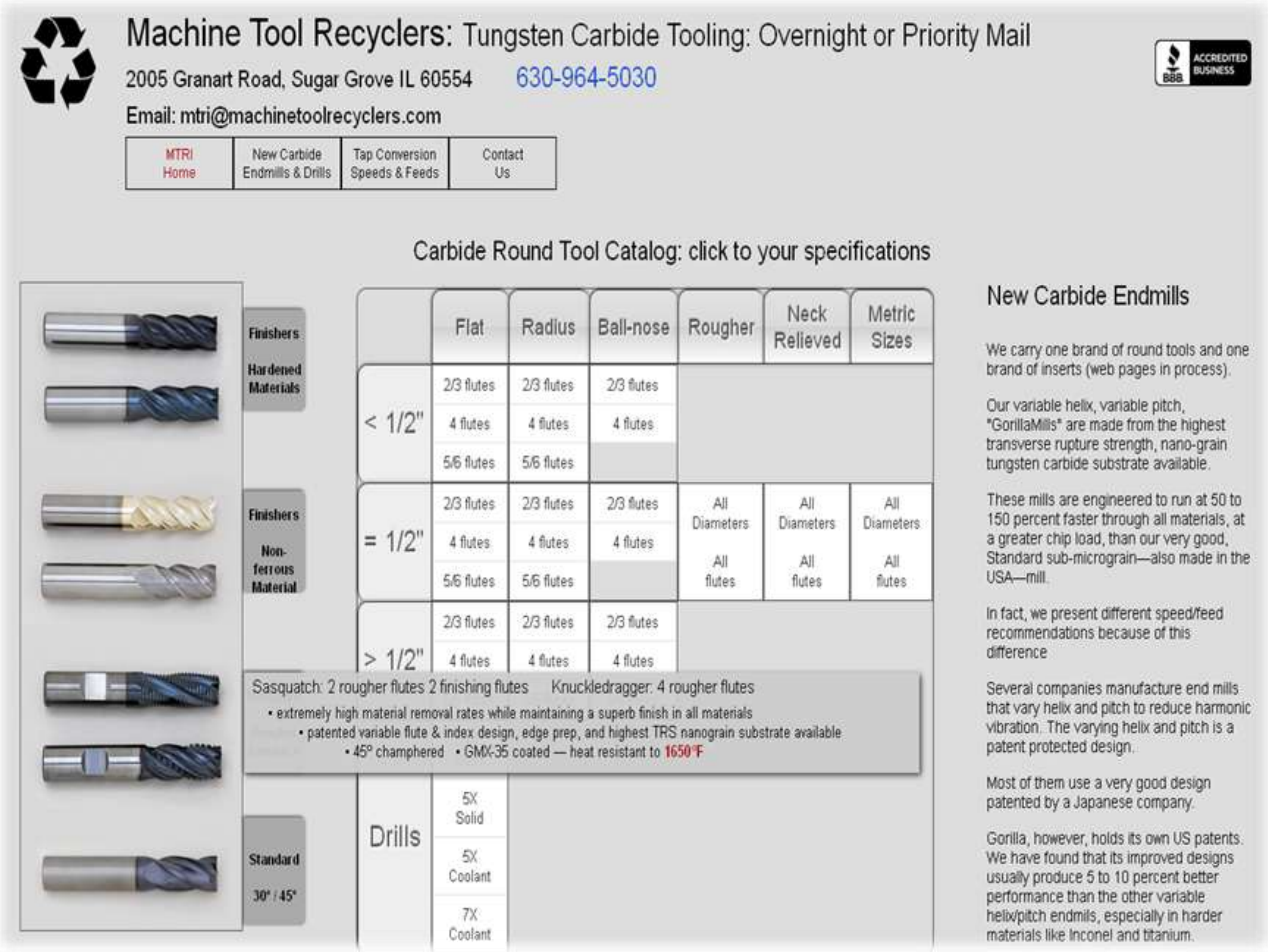
Wear parts like compacts, mining bits and saw tips

Drawing dies, stamping dies, nozzels

Soft carbide scrap / grinding sludge (payment after analysis—about 2 weeks)

our sludge/swarf page has details

For hard scrap, we issue your check *within 24 hours of receipt*.



Machine Tool Recyclers: Tungsten Carbide Tooling: Overnight or Priority Mail

2005 Granart Road, Sugar Grove IL 60554 630-964-5030

Email: mtri@machinetoolrecyclers.com

Carbide Round Tool Catalog: click to your specifications

	Flat	Radius	Ball-nose	Rougher	Neck Relieved	Metric Sizes
< 1/2"	2/3 flutes 4 flutes 5/6 flutes	2/3 flutes 4 flutes 5/6 flutes	2/3 flutes 4 flutes			
= 1/2"	2/3 flutes 4 flutes 5/6 flutes	2/3 flutes 4 flutes 5/6 flutes	2/3 flutes 4 flutes	All Diameters All flutes	All Diameters All flutes	All Diameters All flutes
> 1/2"	2/3 flutes 4 flutes	2/3 flutes 4 flutes	2/3 flutes 4 flutes			
Drills	5X Solid 5X Coolant 7X Coolant					

Sasquatch: 2 rougher flutes 2 finishing flutes Knuckledragger: 4 rougher flutes

- extremely high material removal rates while maintaining a superb finish in all materials
- patented variable flute & index design, edge prep, and highest TRS nanograin substrate available
- 45° champhered • GMX-35 coated — heat resistant to 1650°F

New Carbide Endmills

We carry one brand of round tools and one brand of inserts (web pages in process).

Our variable helix, variable pitch, "GorillaMills" are made from the highest transverse rupture strength, nano-grain tungsten carbide substrate available.

These mills are engineered to run at 50 to 150 percent faster through all materials, at a greater chip load, than our very good, Standard sub-micrograin—also made in the USA—mill.

In fact, we present different speed/feed recommendations because of this difference

Several companies manufacture end mills that vary helix and pitch to reduce harmonic vibration. The varying helix and pitch is a patent protected design.

Most of them use a very good design patented by a Japanese company.

Gorilla, however, holds its own US patents. We have found that its improved designs usually produce 5 to 10 percent better performance than the other variable helix/pitch endmills, especially in harder materials like Inconel and titanium.

Tungsten carbide grinding sludge:

Can you tell the quality of the carbide soft scrap without sending it to a lab?

No, you cannot.

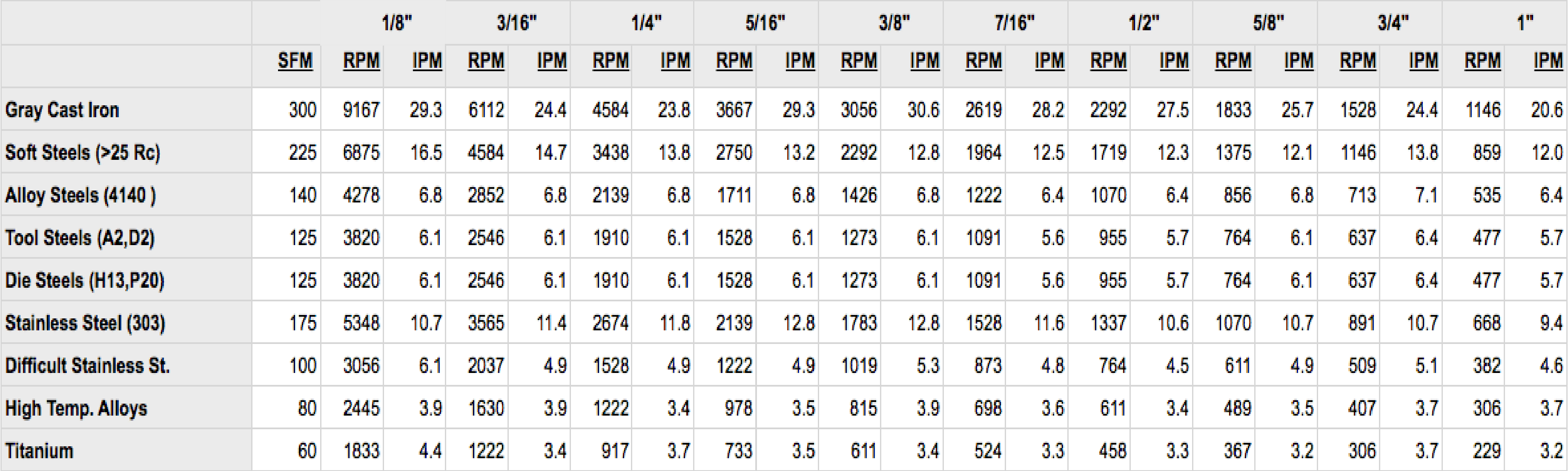
A niton gun reading is likely to be way off

But because tungsten carbide sludge is so heavy, you can estimate the quality of the carbide sludge by its weight.

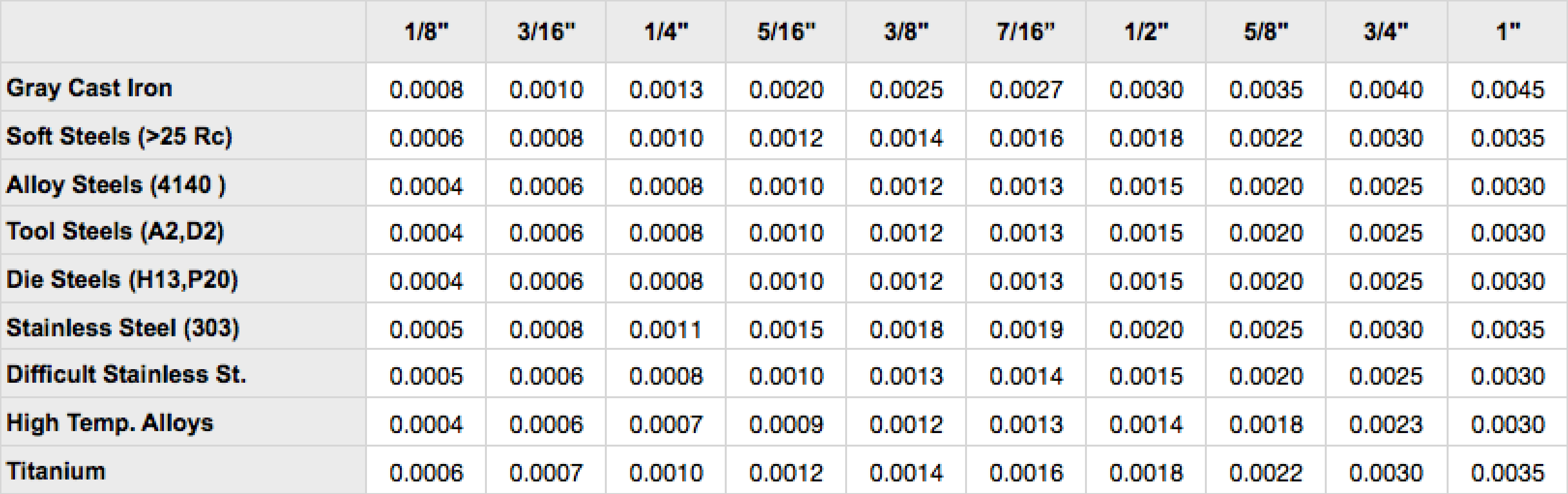
Very heavy is very good:
not so heavy is not so good.

Soft scrap quality guesstimater

30º Finishing speeds and feeds



		1/8"		3/16"		1/4"		5/16"		3/8"		7/16"		1/2"		5/8"		3/4"		1"	
	SFM	RPM	IPM	RPM	IPM	RPM	IPM	RPM	IPM	RPM	IPM	RPM	IPM	RPM	IPM	RPM	IPM	RPM	IPM	RPM	IPM
Gray Cast Iron	300	9167	29.3	6112	24.4	4584	23.8	3667	29.3	3056	30.6	2619	28.2	2292	27.5	1833	25.7	1528	24.4	1146	20.6
Soft Steels (>25 Rc)	225	6875	16.5	4584	14.7	3438	13.8	2750	13.2	2292	12.8	1964	12.5	1719	12.3	1375	12.1	1146	13.8	859	12.0
Alloy Steels (4140)	140	4278	6.8	2852	6.8	2139	6.8	1711	6.8	1426	6.8	1222	6.4	1070	6.4	856	6.8	713	7.1	535	6.4
Tool Steels (A2,D2)	125	3820	6.1	2546	6.1	1910	6.1	1528	6.1	1273	6.1	1091	5.6	955	5.7	764	6.1	637	6.4	477	5.7
Die Steels (H13,P20)	125	3820	6.1	2546	6.1	1910	6.1	1528	6.1	1273	6.1	1091	5.6	955	5.7	764	6.1	637	6.4	477	5.7
Stainless Steel (303)	175	5348	10.7	3565	11.4	2674	11.8	2139	12.8	1783	12.8	1528	11.6	1337	10.6	1070	10.7	891	10.7	668	9.4
Difficult Stainless St.	100	3056	6.1	2037	4.9	1528	4.9	1222	4.9	1019	5.3	873	4.8	764	4.5	611	4.9	509	5.1	382	4.6
High Temp. Alloys	80	2445	3.9	1630	3.9	1222	3.4	978	3.5	815	3.9	698	3.6	611	3.4	489	3.5	407	3.7	306	3.7
Titanium	60	1833	4.4	1222	3.4	917	3.7	733	3.5	611	3.4	524	3.3	458	3.3	367	3.2	306	3.7	229	3.2



	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	1"
Gray Cast Iron	0.0008	0.0010	0.0013	0.0020	0.0025	0.0027	0.0030	0.0035	0.0040	0.0045
Soft Steels (>25 Rc)	0.0006	0.0008	0.0010	0.0012	0.0014	0.0016	0.0018	0.0022	0.0030	0.0035
Alloy Steels (4140)	0.0004	0.0006	0.0008	0.0010	0.0012	0.0013	0.0015	0.0020	0.0025	0.0030
Tool Steels (A2,D2)	0.0004	0.0006	0.0008	0.0010	0.0012	0.0013	0.0015	0.0020	0.0025	0.0030
Die Steels (H13,P20)	0.0004	0.0006	0.0008	0.0010	0.0012	0.0013	0.0015	0.0020	0.0025	0.0030
Stainless Steel (303)	0.0005	0.0008	0.0011	0.0015	0.0018	0.0019	0.0020	0.0025	0.0030	0.0035
Difficult Stainless St.	0.0005	0.0006	0.0008	0.0010	0.0013	0.0014	0.0015	0.0020	0.0025	0.0030
High Temp. Alloys	0.0004	0.0006	0.0007	0.0009	0.0012	0.0013	0.0014	0.0018	0.0023	0.0030
Titanium	0.0006	0.0007	0.0010	0.0012	0.0014	0.0016	0.0018	0.0022	0.0030	0.0035

Tungsten Carbide: Frequently Asked Questions and Trivia

Tungsten is one of densest of all elements. Pure tungsten is slightly heavier than gold with a specific gravity greater than 19. It has the highest melting point of all elements, 6192 °F, and the highest tensile strength at high temperatures. Recovery of tungsten is what makes scrap carbide valuable.

Tungsten is used in super alloys for the aerospace and other high tech industries, e.g. in the turbines of rockets and jet engines. It is the filament in all incandescent light bulbs and most fluorescents; it's why Tom Edison is famous. Tungsten is used in armor plate, armor piercing ammunition and bunker buster bombs. Tungsten carbide is used for studs in snow tires and recently to make wedding rings instead of gold, and it is used to make the cutting tools—pictured left—that are used to machine products from automotive engine blocks to dental drills. Tungsten carbide tooling is critical to mining and drilling as well as road construction. 65% of USA tungsten consumption is used in the manufacture of new tungsten carbide.

In the famous 1946 Film Noir, GILDA, starring Rita Hayworth in her signature role, George Macready plays a fiendish villain who is going to run the world by establishing a monopoly in tungsten. His theory was that control of a critical material could provide a lot of leverage, kinda like bending someone's little finger backwards.

Contact Us

- Machine Tool Recyclers Inc
- *2005 Granart Road,*
  Sugar Grove IL 60554
- *630-964-5030*

- Email: mtri@machinetoolrecyclers.com

For more Information, please visit our website:-

www.machinetoolrecyclers.com

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